

**STIC Database Tracking Number: 235607**

**To: CHARLES ADAMS**  
**Location: RND-3B41**  
**Art Unit: 2164**  
**Tuesday, August 28, 2007**

**Case Serial Number: 10/816011**

**From: EMORY DAMRON**  
**Location: EIC3700**  
**RND-8B31 / RND-8B21**  
**Phone: (571)272-3520**

**emory.damron@uspto.gov**

## Search Notes

Charles-

Please find below your search results.

References of potential pertinence have been tagged, but please review all the packets in case you like something I didn't.

Of those references which have been tagged, please note any manual highlighting which I've done within the document.

There may be a few decent references contained herein, but I'll let you determine how useful they may be to you.

Please contact me if I can refocus or expand any aspect of this case, and please take a moment to provide any feedback (on the form provided) so EIC 3700 may better serve your needs.

Good Luck!

Sincerely,

Emory Damron

Technical Information Specialist

EIC 3700, US Patent & Trademark Office

Phone: (571) 272-3520

emory.damron@uspto.gov

Description of Search Required for case 10/816,011:

This invention basically deals with the idea of estimating the number of results a query will receive when executed on a subset of data, and choosing whether or not to execute the query on the subset of data or on the entire database based on whether or not enough results were received.

What I need to be searched for are the specific estimation functions based on the operators and operands in the query.

Specifically, what I need found are the equations:

$$est(NOT) = N - est(op)$$

$$est(AND) = \frac{est(op_1) * est(op_2)}{N}$$

$$est(OR) = est(op_1) + est(op_2) - \frac{est(op_1) * est(op_2)}{N}$$

Where  $(op)$  is an operand / variable,  $est(x)$  returns an estimated number of results for item  $x$  (either an operator like NOT, AND, or OR or an operand like a variable), and  $N$  is the total number of possible results.

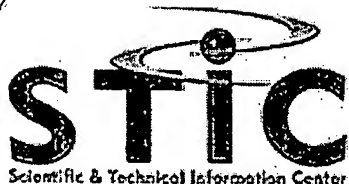
With these definitions, the first equation can be read as “the of the estimate of number of results from a query containing a NOT operator is equal to the total estimate of the number of results minus the total estimate of the number of results for the variable being searched for”.

As an example, the query “NOT B” will be estimated to return TOTAL AMOUNT OF RECORDS ( $N$ ) minus ESTIMATED NUMBER OF RECORDS FOR A QUERY OF B ( $est(op)$ ).

The other equations can be read in a similar fashion.

The estimate of the number of results of the query A AND B can be determined by taking the estimate of number of results of item A multiplied by the estimate of the number of results of item B, and dividing them by the total number of results.

The estimate of the number of results of the query A OR B can be determined based on an estimate of the number of results of A added to an estimate of the number of results of B, from which is subtracted an estimate of the number of results of A times an estimate of the number of results of B divided by the total number of results.



# STIC EIC 2100 Search Request Form

8631  
Emory

235607

Today's Date:

8-28-07

What date would you like to use to limit the search?

Priority Date: 31 MARCH 04 Other:

Name CHARLES ADAMS

AU 2164 Examiner # 81599

Room # 3B41 Phone 571-272-3938

Serial # 10 / 816011

Format for Search Results (Circle One):

PAPER DISK EMAIL

Where have you searched so far?

USP WIPI EPO JPO ACM IBM TDB  
IEEE INSPEC SPI Other Google Scholar

Is this a "Fast & Focused" Search Request? (Circle One) YES NO

A "Fast & Focused" Search is completed in 2-3 hours (maximum). The search must be on a very specific topic and meet certain criteria. The criteria are posted in EIC2100 and on the EIC2100 NPL Web Page at <http://ptoweb/patents/stic/stic-tc2100.htm>.

What is the topic, novelty, motivation, utility, or other specific details defining the desired focus of this search? Please include the concepts, synonyms, keywords, acronyms, definitions, strategies, and anything else that helps to describe the topic. Please attach a copy of the abstract, background, brief summary, pertinent claims and any citations of relevant art you have found.

Is this request for a BOARD of APPEALS case? (Circle One) YES NO

Is this case a SPECIAL CASE? (Circle One) YES NO

PLEASE SEE ATTACHED SHEET —>

2005/222984

claim 8

SAP AKTIENGESSELL-  
SCHAFT

STIC Searcher Emory Danson Phone 2-3520

Date picked up 8/28/7 Date Completed 8/28/7

"RESULT EVERY PREDICT"



XCOPY

Set	Items	Postings	Description
S1	114415	627648	S PREDICT? OR ANTICIPAT? OR FORECAST? OR PROGNOSTICAT? OR GUESS? OR DEDUCE?
S2	309286	1406181	S ESTIMAT? OR DEDUCING OR INFER? OR CONJECTUR? OR SPECULAT? OR INTUIT?
S3	2184	5473	S FORETELL? OR FORETOLD? OR FORESEE? OR FORESAW OR FORESHADOW?
S4	1154738	5146901	S OPERATOR?(5N)OPERAND? OR FORMULA? OR THEOREM? OR POLYNOMIAL? OR QUADRATIC? OR ALGEBRA?
S5	363360	1044475	S MATHEMATIC? OR ARITHMETIC? OR ALGORITHM? OR LOGORITHM? OR LOGARITHM? OR EQUATION?
S6	732105	2905365	S CALCULAT? OR COMPUTATION? OR FRACTION?(2N)RELATIONSHIP?
S7	5022	21353	S DIVISOR?(10N)DIVIDEND?(10N)QUOTIENT? OR CALCULUS? OR TRIGONOMET?
S8	113825	1494534	S S1:S3 AND S4:S7
S9	44264	321997	S NUMBER? OR VOLUME? OR AMOUNT? OR TOTAL?
S10	5992	32587	S COUNT? OR SUMMAR? OR SUMMATION? OR ACCOUNTING?
S11	41480	169315	S TALLY? OR INVENTORY? OR INVENTORIE? OR COMPUTATION? OR CALCULATION? OR QUANTIT?
S12	3668	19899	S ACCUMULAT? OR CUMULAT? OR COMPILAT?
S13	49327	286991	S RESULT? OR OUTPUT? OR ANSWER? OR REPLY? OR REPLIE? OR COMEBACK? OR FEEDBACK? OR POSTING?
S14	14097	82935	S RECORDS OR RETURNS OR OUTCOME? OR RETRIEVAL? OR LOOKUP? OR RESPON? OR HIT OR HITS OR HITLIST?
S15	5	14	S REPERCUSSION?
S16	10181	38223	S PRIOR? OR ERSTWHILE? OR EARLY OR EARLIER OR ANTECED? OR IN()ADVANC? OR PRELIMINAR?
S17	19414	66470	S BEFORE? OR PAST OR PREDAT? OR ANTEDAT? OR PRECEDING? OR PRECEDE? OR PREDECESS? OR PREVIOUS?
S18	3187	25479	S QUERY? OR INQUIR? OR SUBMISSION? OR REQUEST? OR INTERROGAT? OR SQL
S19	930	5279	S QUESTION? OR ENQUIR? OR ASK OR ASKS OR ASKED OR ASKING OR DATA() (MINE? OR MINING)
S20	721	3247	S DATAMIN? OR CRAWL? OR DATACRAWL? OR FETCH?
S21	22491	107208	S CAP OR CAPS OR BENCHMARK? OR YARDSTICK? OR TOUCHSTONE? OR OPTIMAL? OR BASELINE? OR PAR OR PARVALUE?
S22	28446	186624	S MAXIMUM? OR OPTIM? OR BEST? OR THRESHOLD? OR LIMITATION? OR MAXIMAL? OR ULTIMAT? OR UTMOST OR UTTERMOST
S23	16950	144724	S GREATEST? OR LARGEST? OR BIGGEST OR MOST OR TOP OR HIGHEST OR BIGGEST? OR CAPACIT? OR PEAK?
S24	135	632	S MOST() (FAVORABLE OR FAVOURABLE OR DESIRABLE OR APPROPRIATE? OR PERFORMANCE OR VALUA???? OR ADVANTAGEOUS)
S25	1465	13516	S UPPER?() (LIMIT? OR VALUE? OR BOUND?) OR LIMIT?()VALUE?
S26	23364	53778	S IC=G06F?
S27	26220	55296	S MC=T01?
S28	138	5154	S S8 AND S1:S3(10N)S13:S15 AND S16:S17(10N)S18:S20
S29	130	7210	S S28 AND (S9:S12 OR S21:S25 OR S26:S27)
S30	138	9528	S S28:S29
S31	108	9022	S S30 AND S1:S3(7N)S13:S15 AND S16:S17(7N)S18:S20
S32	138	12726	S S30:S31
S33	86	11521	S S32 AND AY=1970:2004
S34	125	11497	S S32 NOT AY=2005:2007
S35	133	14531	S S33:S34
S36	133	13350	IDPAT (sorted in duplicate/non-duplicate order)
S37	131	13274	IDPAT (primary/non-duplicate records only)

; show files

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Set	Items	Postings	Description
S1	3758542	6642936	S PREDICT? OR ANTICIPAT? OR FORECAST? OR PROGNOSTICAT? OR GUESS? OR DEDUCE?
S2	4106701	7765810	S ESTIMAT? OR DEDUCING OR INFER? OR CONJECTUR? OR SPECULAT? OR INTUIT?
S3	28929	30354	S FORETELL? OR FORETOLD? OR FORESEE? OR FORESAW OR FORESHADOW?
S4	3778983	8730323	S OPERATOR?(5N)OPERAND? OR FORMULA? OR THEOREM? OR POLYNOMIAL? OR QUADRATIC? OR ALGEBRA?
S5	8194933	21313617	S MATHEMATIC? OR ARITHMETIC? OR ALGORITHM? OR LOGORITHM? OR LOGARITHM? OR EQUATION?
S6	5596246	9197192	S CALCULAT? OR COMPUTATION? OR FRACTION?(2N)RELATIONSHIP?
S7	289421	462551	S DIVISOR?(10N)DIVIDEND?(10N)QUOTIENT? OR CALCULUS? OR TRIGONOMET?
S8	2733264	14023467	S S1:S3 AND S4:S7
S9	17522670	25721200	S RESULT? OR OUTPUT? OR ANSWER? OR REPLY? OR REPLIE? OR COMEBACK? OR FEEDBACK? OR POSTING?
S10	5584108	10293250	S RECORDS OR RETURNS OR OUTCOME? OR RETRIEVAL? OR LOOKUP? OR RESPON? OR HIT OR HITS OR HITLIST?
S11	12682	13953	S REPERCUSSION?
S12	417067	755701	S QUERY? OR INQUIR? OR SUBMISSION? OR REQUEST? OR INTERROGAT? OR SQL
S13	1451790	2269866	S QUESTION? OR ENQUIR? OR ASK OR ASKS OR ASKED OR ASKING OR DATA() (MINE? OR MINING)
S14	20136	36239	S DATAMIN? OR CRAWL? OR DATACRAWL? OR FETCH?
S15	63263	703344	S S8 AND S9:S11 AND S12:S14
S16	24148	60897	S NUMBER? OR VOLUME? OR AMOUNT? OR TOTAL?
S17	8803	14244	S COUNT? OR SUMMAR? OR SUMMATION? OR ACCOUNTING?
S18	18398	33764	S TALLY? OR INVENTORY? OR INVENTORIE? OR COMPUTATION? OR CALCULATION? OR QUANTIT?
S19	1242	1840	S ACCUMULAT? OR CUMULAT? OR COMPILAT?
S20	9373	14488	S PRIOR? OR ERSTWHILE? OR EARLY OR EARLIER OR ANTECED? OR IN()ADVANC? OR PRELIMINAR?
S21	11360	15227	S BEFORE? OR PAST OR PREDAT? OR ANTEDAT? OR PRECEDING? OR PRECEDE? OR PREDECESS? OR PREVIOUS?
S22	7457	15528	S CAP OR CAPS OR BENCHMARK? OR YARDSTICK? OR TOUCHSTONE? OR OPTIMAL? OR BASELINE? OR PAR OR PARVALUE?
S23	17538	40627	S MAXIMUM? OR OPTIM? OR BEST? OR THRESHOLD? OR LIMITATION? OR MAXIMAL? OR ULTIMAT? OR UTMOST OR UTTERMOST
S24	15540	24663	S GREATEST? OR LARGEST? OR BIGGEST OR MOST OR TOP OR HIGHEST OR BIGGEST? OR CAPACIT? OR PEAK?
S25	253	540	S MOST() (FAVORABLE OR FAVOURABLE OR DESIRABLE OR APPROPRIATE? OR PERFORMANCE OR VALUA???? OR ADVANTAGEOUS)
S26	1279	3592	S UPPER?() (LIMIT? OR VALUE? OR BOUND?) OR LIMIT?()VALUE?
S27	491	8910	S S15 AND S1:S3(7N)S9:S11 AND S20:S21(7N)S12:S14
S28	184	4055	S S27 AND S1:S3(7N)S4:S7
S29	89	2036	S S27 AND S16:S19(7N)S9:S11
S30	64	1578	S S27 AND S22:S26(7N)S9:S11
S31	266	7002	S S28:S30
S32	208	5561	S S31 AND PY=1970:2004
S33	212	5444	S S31 NOT PY=2005:2007
S34	212	8824	S S32:S33
S35	157	6756	RD (unique items)

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